

REMARKS

Claims 17, 34, 41, 43 and 52 are amended. Claims 32 and 42 are canceled. Claims 17-31, 33-41 and 43-59 remain in the application for consideration. In view of the following remarks, Applicant respectfully requests that the rejections be withdrawn and the application be forwarded on to issuance.

§ 112 Rejections

Claim 41 stands rejected under 35 U.S.C. § 112, second paragraph as lacking an antecedent basis for the term "the hand-held mobile computing device". This claim has been amended to overcome the rejection.

§ 102/103 Rejections

Claims 17-19, 29, 34 and 41 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,401,051 to Merriam.

Claims 17, 21-28, 30, 34-41, 43, 44, 46-52 and 54-59 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,321,092 to Fitch.

Claims 20, 31, 45 and 53 stand rejected under 35 U.S.C. §103(a) as being obvious over Fitch.

Claims 32, 33 and 42 stand rejected under 35 U.S.C. §102(e) as being obvious over Fitch in view of U.S. Patent No. 5,539, 992 to Wang.

Before undertaking a discussion of the substance of the Office's rejections, the following discussion of the §103 Standard is provided.

The §103 Standard

In making out a §103 rejection, the Federal Circuit has stated that when ~~one~~ or more reference or source of prior art is required in establishing obviousness, "it is necessary to ascertain whether the prior art *teachings* would appear to be sufficient to one of ordinary skill in the art to suggest making the claimed substitutions or other modification." *In re Fine*, 5 USPQ 2d, 1596, 1598 (Fed. Cir. 1988). That is, to make out a prima facie case of obviousness, the references must be examined to ascertain whether the combined *teachings* render the claimed subject matter obvious. *In re Wood*, 202 USPQ 171, 174 (C.C.P.A. 1979).

Moreover, there is a requirement that there must be some reason, suggestion, or motivation *from the prior art*, as a whole, for the person of ordinary skill to have combined or modified the references. *See, In re Geiger*, 2 USPQ 2d 1276, 1278 (Fed. Cir. 1987). It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fritch*, 23 USPQ 2d 1780, 1784 (Fed. Cir. 1992).

A factor cutting against a finding of motivation to combine or modify the prior art is when the prior art *teaches away* from the claimed combination. A reference is said to teach away when a person of ordinary skill, upon reading the reference, would be led in a direction divergent from the path that the applicant took. *In re Gurley*, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994).

1 In order for a prima facie case of obviousness to be made, the resulting
2 combination or motivation must appear to show or suggest the claimed invention.
3 *In re Nielson*, 2 USPQ 2d1525, 1528 (Fed. Cir. 1987).

4 In addition to the standard discussed above, the Office has provided a
5 paper, available at the following link:

6
7 <http://www.uspto.gov/web/menu/busmethp/busmeth103rai.htm>
8

9 that describes proper and improper rejections made under §103(a).
10 Particularly instructive is Example 17 that appears in Section V of the paper
11 illustrating an improper §103(a) rejection which is based upon a proposed
12 motivation that is simply too general and lacking in particularity. This example is
13 reproduced below in its entirety for the Office's convenience:

14 **V. Examples of Improper Rejection under 35 U.S.C. 103**

15 Example 17: Improper rejection based upon hindsight - general
16 motivation statement.

17 **a. The claimed invention**

18
19 The invention is drawn to a smart card containing a tracking
20 mechanism, which tracks shopping preferences of consumers by recording
21 the type, quantity, and dates of purchase for a pre-selected group of
22 products. The smart card is useful in a system and method for introducing
23 new and alternative products that are of the same type as products normally
24 purchased by the shopper. The smart card records the shopper's purchases
25 and submits an automatic notification to the shopper when a quantity
threshold is achieved for the pre-selected products. This notification will
encourage the consumer to consider alternative products by providing the
consumer incentives, such as a pricing discount, to purchase an alternative
product.

1 Claim 1:
2

3 A method for using a smart card in a marketing analysis program designed
4 to introduce new products, the method comprising the steps of:

5 storing product information on the smart card when said products
6 are purchased by a consumer wherein said information including type,
7 quantity and dates of the product purchased;

8 identifying for each product a threshold for each of said type,
9 quantity and dates of products purchased;

10 determining an incentive for an alternative product based on said
11 threshold; and

12 automatically notifying said consumer when said threshold is
13 reached for a given product identified on the smart card and providing the
14 consumer with said incentive, whereby the incentive encourages the
15 consumer to consider alternative products.

16 **b. Evidence**

17 Reference A discloses smart card that tracks consumer preferences by
18 recording the type, quantity, and dates of purchase of pre-selected products to
19 determine trends in consumer purchases. The smart card is periodically read by a
20 scanner to determine its contents for market analysis. In return for using the smart
21 card and participating in the marketing program, the user is provided with free
22 product coupons for products that are normally purchased by the shopper.

23 Reference B discloses a traditional consumer incentive program that
24 provides coupons for the purchase of named products based upon the consumer's
25 purchase of those same products to promote customer loyalty.

19 **c. Poor statement of the rejection**

20 Claim 1 is rejected under 35 U.S.C. 103 as being unpatentable over
21 Reference A in view of Reference B. Reference A discloses the
22 conventional use of a smart card to track consumer preferences and provide
23 incentives. However, Reference A does not disclose the automatic
24 notification to consumer providing incentives. Reference B discloses
25 providing incentives to consumers to purchase the desired products. *It
would have been obvious to combine Reference A's smart card with
Reference B's incentive to consumers because the combination would
allow Reference A's smart card to be more efficient.*

d. Analysis

The motivation, improve efficiency, is too general because it could cover almost any alteration contemplated of Reference A and does not address why this specific proposed modification would have been obvious. Additionally, there is nothing in either of references that would suggest automatically notifying the consumer when reaching a threshold nor is there anything in either reference that would suggest the notifying step. Finally, although Reference B teaches a traditional coupon scheme to promote customer loyalty, there is no suggestion, other than applicant's disclosure, to employ this scheme to promote the introduction of new and alternative products. The rejection is improper.

The Claims

Claim 17 has been amended and, as amended, recites a computing device comprising [added language appears in bold italics]:

- a computer-readable medium;
- a location service module embodied on the computer-readable medium; and
- multiple different location providers configured to receive information from one or more different sources of information and process the information to provide location information to the location service module,
- the location service module being configured to process the location information to provide a current device location; and
- *a hierarchical tree structure that resides on the computer-readable medium, the hierarchical tree structure comprising multiple nodes that are each assigned a unique identification, the nodes representing geographical divisions of the Earth, the location service module being configured to traverse at least some of the nodes to provide the current device location.*

This claim has been amended to incorporate the subject matter of claim 32. In making out the rejection of claim 32, the Office argues that Fitch discloses all of the subject matter of the independent claim except for the hierarchical tree

1 structure. For this feature, the Office relies on Wang and argues that its
2 combination with Fitch would render the subject matter of claim 32 obvious. As a
3 motivation for making this combination, the Office argues that the motivation
4 would be to "more efficiently and precisely determine the current location of a
5 device." See, e.g. Office Action, ¶ 8.

6 Applicant respectfully submits that the Office has not established a *prima*
7 *facie* case of obvious. More specifically, the Office's stated motivation (to
8 improve efficiency), just like the motivation provided in the example in the
9 Office's own paper, *is too general because it could cover almost any alteration*
10 *contemplated of Fitch and does not address why this specific proposed*
11 *modification would have been obvious.*

12 Accordingly, this claim is allowable.

13 Claims 18-31 and 33 depend from claim 17 and are allowable as
14 depending from an allowable base claim. These claims are also allowable for their
15 own recited features which, in combination with those recited in claim 17, are
16 neither disclosed nor suggested in the references cited and applied by the Office.

17 Claim 34 has been amended and, as amended, recites a method of
18 determining the location of a computing device comprising [added language
19 appears in the bold italics]:

- 20
- 21 • providing multiple location providers that are configured to provide
22 location information that pertains to a current location of the
23 computing device;
 - 24 • receiving location information from the multiple location providers
25 using a common interface;
 - using the information that is received from the multiple location
providers to ascertain a current device location *by using a*
hierarchical tree structure comprising multiple nodes that are each

1 *assigned a unique identification, the nodes representing*
2 *geographical divisions of the Earth, said act of using comprising*
3 *traversing at least some of the nodes to provide the current device*
4 *location.*

5 With regard to the subject matter that has been incorporated into this claim,
6 the Office has failed to establish a *prima facie* case of obviousness, as noted
7 above. Accordingly, this claim is allowable.

8 **Claims 35-40** depend from claim 34 and are allowable as depending from
9 an allowable base claim. These claims are also allowable for their own recited
10 features which, in combination with those recited in claim 34, are neither disclosed
11 nor suggested in the references cited and applied by the Office.

12 **Claim 41** has been amended and, as amended, recites one or more
13 computer-readable media having computer-readable instructions thereon which,
14 when executed by a *hand-held mobile* computing device, cause the hand-held
15 mobile computing device to [added language appears in the bold italics]:

- 16 • provide multiple different location providers that are configured to
17 provide location information that pertains to a current location of the
18 computing device;
19 • receive location information from the multiple different location
20 providers using a common interface; and
21 • use the information that is received from the multiple location
22 providers to ascertain a current device location *by traversing a*
23 *hierarchical tree structure comprising multiple nodes that*
24 *represent physical or logical entities in order to ascertain the*
25 *current device location.*

26 This claim has been amended to incorporate the subject matter of its
27 dependent claim—claim 42. In making out the rejection of claim 42, the Office
28 argues that its subject matter would be obvious over the combination of Fitch and

1 Wang. As noted above, the Office has failed to establish a *prima facie* case of
2 obviousness with regard to the combination of these two references. As such, this
3 claim is allowable.

4 Claim 43 has been amended and, as amended, recites a method of
5 determining the location of a mobile computing device comprising [added
6 language appears in the bold italics]:

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- 8 • providing multiple different location providers that are configured to
provide location information that pertains to a current location of the
computing device;
- 9 • monitoring one or more of the location providers;
- 10 • assigning a confidence parameter to location information that is
provided by one or more providers, the confidence parameter
11 providing a measure of a provider's confidence in its location
information;
- 12 • sending the location information and the confidence parameter to a
location service module on the mobile computing device, the
location service module being configured to use the location
13 information and the confidence parameter to ascertain a current
device location;
- 14 • *wherein said location information is configured to be used by the
location service module in conjunction with a hierarchical tree
structure that resides on a computer-readable medium on the
mobile computing device, to ascertain the current device location,
the hierarchical tree structure comprising multiple nodes that are
each assigned a unique identification, the nodes representing
geographical divisions of the Earth, the location service module
being configured to traverse at least some of the nodes to provide
the current device location.*
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22 This claim has been amended to include subject matter which is neither
23 disclosed nor suggested in the references cited and applied by the Office.
24 Accordingly, this claim is allowable.

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1 Claims 44-51 depend from claim 43 and are allowable as depending from
2 an allowable base claim. These claims are also allowable for their own recited
3 features which, in combination with those recited in claim 43, are neither disclosed
4 nor suggested in the references cited and applied by the Office.

5 Claim 52 has been amended and, as amended, recites a method of
6 determining the location of a mobile computing device comprising [added
7 language appears in the bold italics]:

- 8 • providing multiple different location providers that are configured to
9 provide location information that pertains to a current location of the
10 computing device;
- 11 • monitoring one or more of the location providers;
- 12 • assigning an accuracy parameter to location information that is
13 provided by one or more providers, the accuracy parameter
14 providing a measure of the accuracy of a provider's location
15 information;
- 16 • sending the location information and accuracy parameter to a
17 location service module on the mobile computing device, the
18 location service module being configured to use the location
19 information and the accuracy parameter to ascertain a current device
20 location;
- 21 • *wherein said location information is configured to be used by the
22 location service module in conjunction with a hierarchical tree
23 structure that resides on a computer-readable medium on the
24 mobile computing device, to ascertain the current device location,
25 the hierarchical tree structure comprising multiple nodes that are
26 each assigned a unique identification, the nodes representing
27 geographical divisions of the Earth, the location service module
28 being configured to traverse at least some of the nodes to provide
29 the current device location.*

30 This claim has been amended to include subject matter which is neither
31 disclosed nor suggested in the references cited and applied by the Office.
32 Accordingly, this claim is allowable.

1 Claims 53-59 depend from claim 52 and are allowable as depending from
2 an allowable base claim. These claims are also allowable for their own recited
3 features which, in combination with those recited in claim 52, are neither disclosed
4 nor suggested in the references cited and applied by the Office.

5
6 Conclusion

7 All of the claims are in condition for allowance. Accordingly, Applicant
8 respectfully requests a Notice of Allowability be issued forthwith. If the Office's
9 next anticipated action is to be anything other than issuance of a Notice of
10 Allowability, Applicant respectfully requests a telephone call for the purpose of
11 scheduling an interview.

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13 Respectfully Submitted,

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